Amendments to the Claims:

1. (Currently Amended) A method of collecting and arranging photoemission data relating

to a plurality of die on a wafer, said method comprising: acquiring and collecting illumination

and photoemission images for the die each one of a plurality of die on the wafer; and overlaying,

aligning, and assembling the <u>collected</u> images into a mosaic, <u>wherein spatial relationships</u>

between the plurality of die are maintained when forming the mosaic.

2. (Original) A method as recited in claim 1, further comprising analyzing the mosaic.

3. (Original) A method as recited in claim 1, further comprising moving the wafer to acquire

the images relating to the plurality of die.

4. (Original) A method as recited in claim 1, further comprising providing a camera and

moving the camera to acquire the images relating to the plurality of die.

5. (Original) A method as recited in claim 1, further comprising providing a camera and

moving the camera and wafer to acquire the images relating to the plurality of die.

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6. (Currently Amended) A system for collecting and arranging photoemission data relating

to a plurality of die on a wafer, said system comprising: a camera configured to acquire and

collect illumination and photoemission images of the die; a processor/controller in

communication with the camera, said processor/controller configured to operate the camera to

acquire and collect illumination and photoemission images for the die each one of a plurality of

die on the wafer, and configured to overlay, align, and assemble the collected images into a

mosaic, wherein spatial relationships between the plurality of die are maintained when forming

the mosaic.

7. (Original) A system as recited in claim 6, wherein the processor/controller is configured

to analyze the mosaic.

8. (Original) A system as recited in claim 6, wherein the processor/controller is configured

to move the camera to acquire the images relating to the plurality of die.

9. (Original) A system as recited in claim 6, wherein the processor/controller is configured

to move the wafer to acquire the images relating to the plurality of die.

10. (Original) A system as recited in claim 6, wherein the processor/controller is configured

to move the camera and wafer to acquire the images relating to the plurality of die.

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